It's Alarming, isn't it? The alarm (and restraint) free environment.

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Conflict of Interest

* I have no conflict of interest to declare

Objectives

1. Identify Misconceptions of Alarm Use
2. The Benefits of Alarm Reduction / Elimination
3. How to Implement an Alarm Reduction Program
4. Identifying Regulatory Issues and Requirements Related to Alarm and Restraint Use.

Definition of Alarms

* What is a personal alarm?
  * **Alerting devices designed to emit a loud signal when a person moves**
* Why alarms came into use?
  * **Initially short term**

Fall Prevention

* We can't prevent ALL falls
  * ***But Restraints and Alarms can't either !!!!***

Misconceptions of Personal Alarm Use

* Alarms ***prevent*** falls and injuries
  * ***Reality***
    * Alarms do not prevent falls from happening
    * Alarms alert staff that the resident has moved
    * Alert staff that a resident has fallen
    * "...just as restraints cause harm by keeping from moving, so do personal alarms. There is also no evidence to support alarms usefulness in preventing falls and injuries", (ADvancing Care, November/December 2012).

Misconceptions of Personal Alarm Use

* Alarms are a ***proactive*** approach to fall prevention
  * ***Reality***
    * Alarms are **reactive** approach to fall prevention
      * Only indicate to staff that the resident has moved or has already fallen

Misconceptions of Personal Alarm Use

* Alarms give a ***positive sense of security*** to families
  * ***Reality***
    * ***False (deceiving)*** sense of security
      * Family believes the alarm prevents falls

Misconceptions of Personal Alarm Use

* Alarms give ***a positive sense of security*** for staff and environment
  * ***Reality:***
    * "Give false sense of security and at same time, absorb an inordinate amount of staff time responding to the alarm" (Advancing Care, November/December 2012).
    * "Many residents dislike them and repeatedly hide or remove them, device malfunction (the cord breaks or detaches, batteries die, alarms fail to go off, or are slow to respond, and if too many are in use, the warning sound loses its effectiveness at alerting staff" (ADvancing Care, November/December 2012).

If a Resident with An Alarm on Falls…

… then the alarm didn't work.

The Negative Impacts of Alarm Use

* Sleep Deprivation
* Behaviors
* Skin Breakdown
* Immobility
* Affects dignity & privacy
* Incontinence

The Negative Impacts of Alarm Use

* ***Sleep Deprivation***
  * Alarm sounds with movement
  * Disturbs resident
  * Disturbs roommate
  * Disturbs the sleep cycle
  * Lack of deep sleep
    * Compounds agitation, contributes to loss of appetite and decreased balance and endurance !

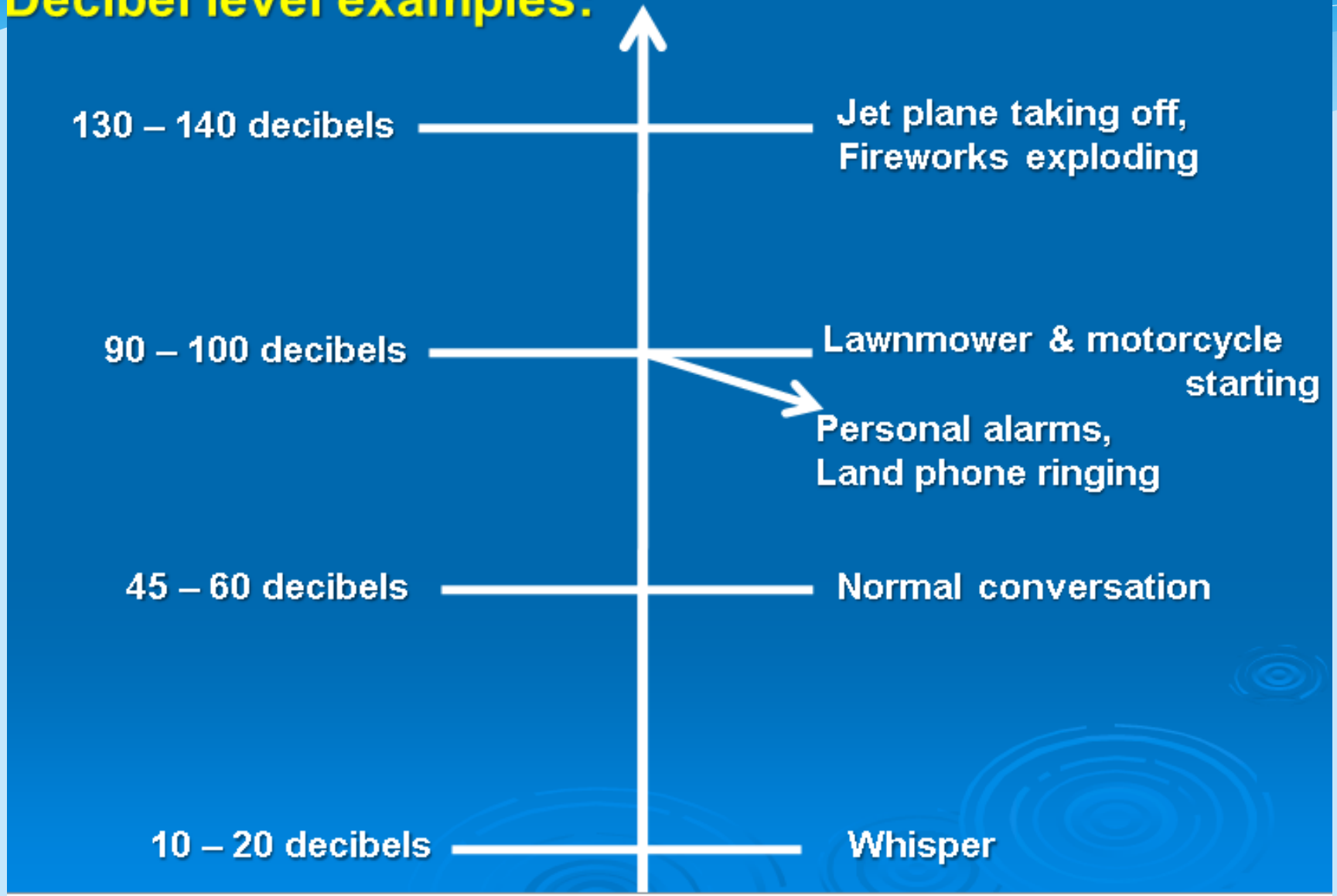
The Negative Impacts of Alarm Use

* ***Behaviors***
  * Cognitively impaired
    * Disturbed by the noise
    * Do not know what is happening
    * Creates noise, confusion and fear

A little about noise…

* **Noise dramatically affects people with dementia in terms of quality of life.**
* Dementia can worsen the effects of sensory changes by altering how the person perceives external stimuli, such as noise and light.
* As hearing is linked to balance this increases risk of falls either through loss of balance or through an increase in disorientation as a result of people trying to orientate themselves in an environment that is over stimulating and noisy.
* Noise at night can result in disturbed sleep which in turn can lead to problems during the day. What do you feel like when you don't get enough sleep?
* Be aware of noise from specific devices, such as staff pagers, alarms, doorbells or telephones. Try to minimize these types of noises , which can be intrusive, especially when combined with other background noise and at night times.

Decibel level examples:



Alarms Create Reactionary Care Rather than Anticipatory Care.

* **Definition of Convenience from F-221 (Restraints):**

  "convenience is defined as any action taken by a facility to control a residents behavior or manage a residents behavior with a lesser amount of effort by the facility and not in the resident's best interest"

  * ***Although alarms are not restraints, they have the same potential negative risks as a restraint (increased falls & loss of muscle tone, increased agitation, incontinence,etc)***

The Negative Impacts of Alarm Use

* ***Skin Breakdown & Immobility***
  * Alarms encourage resident ‘s to not move
  * Repeatedly telling resident to “sit down”
  * Resident’s don’t want the noise, don’t make small shifts in weight to avoid the alarm sounding

The Negative Impacts of Alarm Use

* ***Incontinence***
  * Not responding to the resident's potential toileting needs

The Negative Impacts of Alarm Use

* ***Dignity and Privacy***
  * Visual
  * Auditory

Alarm Sounds

* When an alarm goes off, staff reaction is to tell the resident to:
  * **“Sit down.”**
* This is opposite to what the resident has learned and confuses them!

FALL RISK

* Prior to removing alarms
* Have to address fall risks ; two tiers
  * Proactive
  * Reactive

Two Tiered Approach

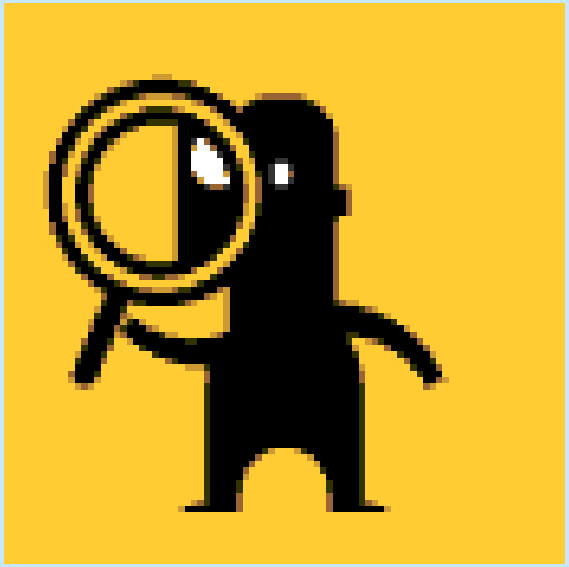
- Proactive (fall prevention)
  - Speculate on risk factors of falls
  - Actions based on conjecture
  - Actions based on predictions
- Reactive (post falls action)
  - Investigate current falls as they occur
  - Collect factual evidence from the fall event
  - Collate, aggregate and study the causes of falls

Staff Education

* Starts with educating on Root Cause Analysis
  * Question : Why did the alarm go off?
  * Answer : Because the person was moving!
    * **NO!!**
  * RCA: What does the resident need that set the alarm off?
  * RCA: What was the resident doing just before the alarm went off?

What is Root Cause Analysis?

- **RCA is a process to find out what happened, why it happened, and to determine what can be done to prevent it from happening again.**



Root Cause Analysis:

- Root cause analysis (RCA) transforms an old culture that reacts to problems, into a new culture that solves problems before they escalate (proactive)
- Aiming performance improvement operations at root causes is more effective than merely treating the symptoms of problems.
- Problems are best solved by eliminating and correcting the root causes, as opposed to merely addressing the obvious symptoms with "scatter-gun approaches" to solutions.

Four Situations that can Hinder, Divert, or Prevent Successful Root Cause Analysis:

1. Blame Game
2. Human Nature
3. Tunnel Vision
4. Perfect Storm

The Blame Game

- Blame/shame:
  Whose fault is this?

- Just find that one person
  who messed up and
  we find the cause. NO!

- Moving from *who* did it to →
  why did this happen?

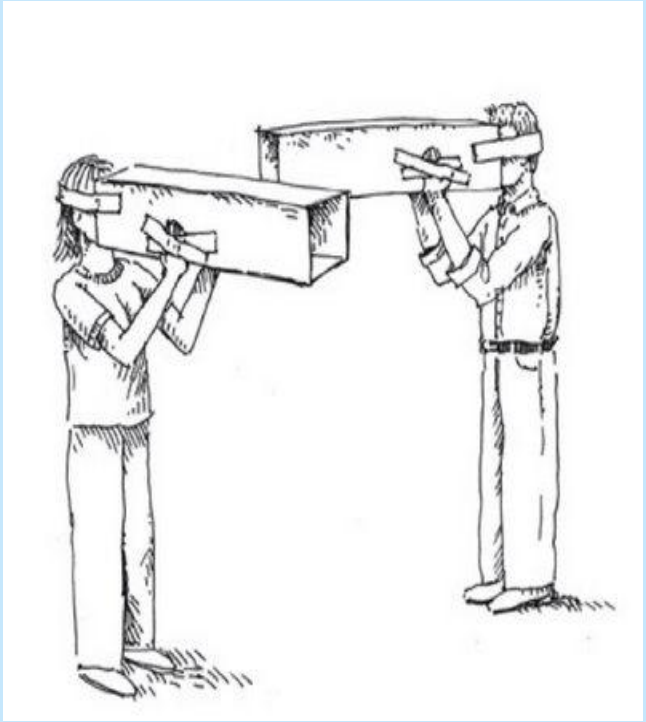
  Ask why again, and again, and
  again, and again.

Human Factors

- Humans forget
  - They succumb to a busy lifestyle and avoid being diligent
- Humans make mistakes
  - They inadvertently do things they shouldn't do
- Humans do at-risk behaviors
  - They do things that increase risk or danger but believe it is justified
- Humans don't learn all that they are taught

Tunnel Vision

- At the time the accident occurred, people usually behave seeing only one way to perform.
- In reconstructing the event, we most often view the event from outside of their tunnel vision. We now have hind-sight knowledge.
- We look at the event seeing all the options the person could have done.



The Perfect Storm

* Everything that can possibly go wrong,
  GOES WRONG!

Why Do RCA After a Fall?

The goal is for no one, including that resident, to ever fall that same way again.

If your brakes failed on an icy road– would you ignore it,
because it will never happen again? Or would you have your brakes fixed?

3 Areas to Investigate for RCA

1. **External causes**
2. **Internal causes**
3. **Systemic causes**

External Causes of Falls
(External Causes account for ~ 30% of all Nursing Home Falls)

* Noise- the #1 external cause of falls-
  * ***Alarming, isn't it?***
* Poor Lighting & Clutter
* Personal items/ Assistive devices out of reach
* Clutter/Mats
* Incorrect Footwear
* Time of Day

Internal Causes

- Mood status & cognitive changes + frequent napping, ↑ falls, ↑ agitation

=

<u>sleep deprivation #1</u>

Internal Causes

- Medications
- Cognitive Abilities & Mood Status
- Poor balance
- Endurance/Strength
- Orthostatic Blood Pressures
- Restlessness, Agitation

Systemic Causes

* Assignments
* Time of Day
* Location
* Staffing levels

Root Cause Analysis

* 3 Steps
  * **Step One**
    * What happened, gather clues?
  * **Step Two**
    * Why did this happen? What conditions allowed this problem to exist?
  * **Step Three**
    * Implement Corrective actions

Step 1: Gather Clues, Evidence, Data

- **Observation skills are critical!**
  - It's easy to miss something you're not looking for
- **Gather the clues:**
  - Look, listen, smell, touch
  - Question, interview, re-enact, huddle – immediately
  - Note placement of resident, surrounding environment and operational conditions
- **Protect the area around the incident:**
  - Secure the room/equipment immediately
  - Observation and recording begins immediately – while things are still fresh!
- **(Awareness Test)**

How Aware Are You?

* As you walk through the hallways, are you looking for situations that could result in falls?

- Hazards
- Inappropriate Footwear
- Personal belongings out of reach
- Bed Height
- Signs/Signals of Agitation (pacing, restlessness, crying, worried facial expressions, disruptive sounds, fixation on ideas…)
- Call lights on

<u>What other situations would alert you?</u>

Post Fall RCA:

- Root Cause(s) Analysis:
  - Why did they fall? →
  - What were they doing before they fell? →
  - But, what was different this time? →
  - Where did they fall? →
  - When did they fall? →
  - What was going on when they fell?
  - So, why did they fall? →

Step 2: Tools to Determine RCA

- "10 Questions"
- Post Fall Huddle
- Staff Interviews
- Reenact

Post Fall Evaluation (PFE) Report

- **PFE Report**
- **MDS, QM/QI Report**
- **Hourly Rounding (4Ps)**

Weekly Falls Committee Meeting

Internal Causes

- What was the resident doing or trying to do just before they fell?
  - Ask them
  - *All residents, all the time*

- **Place of fall:**
  - **At bedside, 5 feet away, > 15 feet**
  - **Orthostatic, Balance/gait, Strength/endurance**
  - **In bathroom/at commode: √ contents of toilet**
  - **Urine or feces in toilet/commode? Urine on floor?**

<u>10 Questions at the time a resident falls.</u> Stay with resident, call nurse.

1. **Ask resident: Are you ok?**
2. **Ask resident: What were you trying to do?**
3. **Ask resident or determine: What was different this time?**
4. **Position of Resident?**
    - **a. Did they fall near a bed, toilet or chair? How far away?**
    - **b. On their back, front, L side, or R side?**
    - **c. Position of their arms & legs?**
5. **What was the surrounding area like?**
    - **a. Noisy? Busy? Cluttered?**
    - **b. If in bathroom, contents of toilet?**
    - **c. Poor lighting – visibility?**
    - **d. Position of furniture & equipment? Bed height correct?**
6. **What was the floor like?**
    - **a. Wet floor? Urine on floor? Uneven floor? Shiny floor?**
    - **b. Carpet or tile?**
7. **What was the resident's apparel?**
    - **a. Shoes, socks (non-skid?) slippers, bare feet?**
    - **b. Poorly fitting clothes?**
8. **Was the resident using an assistive device?**
    - **a. Walker, cane, wheelchair, merry walker, other**
9. **Did the resident have glasses and/or hearing aides on?**
10. **Who was in the area when the resident fell?**

Fall Huddle

- Performed immediately after resident is stabilized

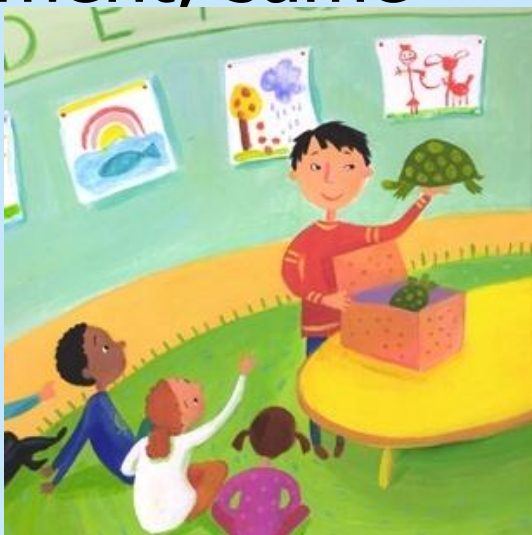
- Charge nurse has all staff, working in the area of the fall, meet together to determine RCA

- Review "10 Questions" with staff
- Also ask staff:
  - "Who has seen or has had contact with this resident within the last few hours?"
  - "What was the resident doing?"
  - "How did they appear? How did they behave?"

Re-enact or "Show & Tell"

- The persons involved in the fall or incident are asked to re-create what happened – "do exactly what you did when the fall happened the first time."
- Use the same people, same equipment, same room, same time of day

Activity: Let's re-enact a fall scene



Step 3: Implement Interventions / Solutions

- What will you do to prevent this problem from happening again?
- Do the interventions / solutions match the causes of the problem?
- How will it be implemented? Who will be responsible for what?
- How will the solutions impact or affect other operations / people in your facility?
- What are risks to implementing the solutions?
- Move from weak to strong interventions.

Hierarchy of Actions and Interventions

- **National Center for Patient Safety's "Hierarchy of Actions", a classification of corrective actions and interventions:**

  - Weak – actions that depend on staff to remember their: training, policies, assignments, regulations, e.g. "remind staff to . . ." or "remind resident to . . ."

  - Intermediate – actions are somewhat dependent on staff remembering to do the right thing, but tools are provided to help the staff remember or to help promote better communication, e.g. lists, pictures, icons, color bands

  - ***Strong** – does not depend on staff to remember to do the right thing. The tools or actions provide very strong controls, e.g. timed light switch, auto lock brakes,etc.

Most Effective

Examples of Strong Interventions for Restlessness and Agitation

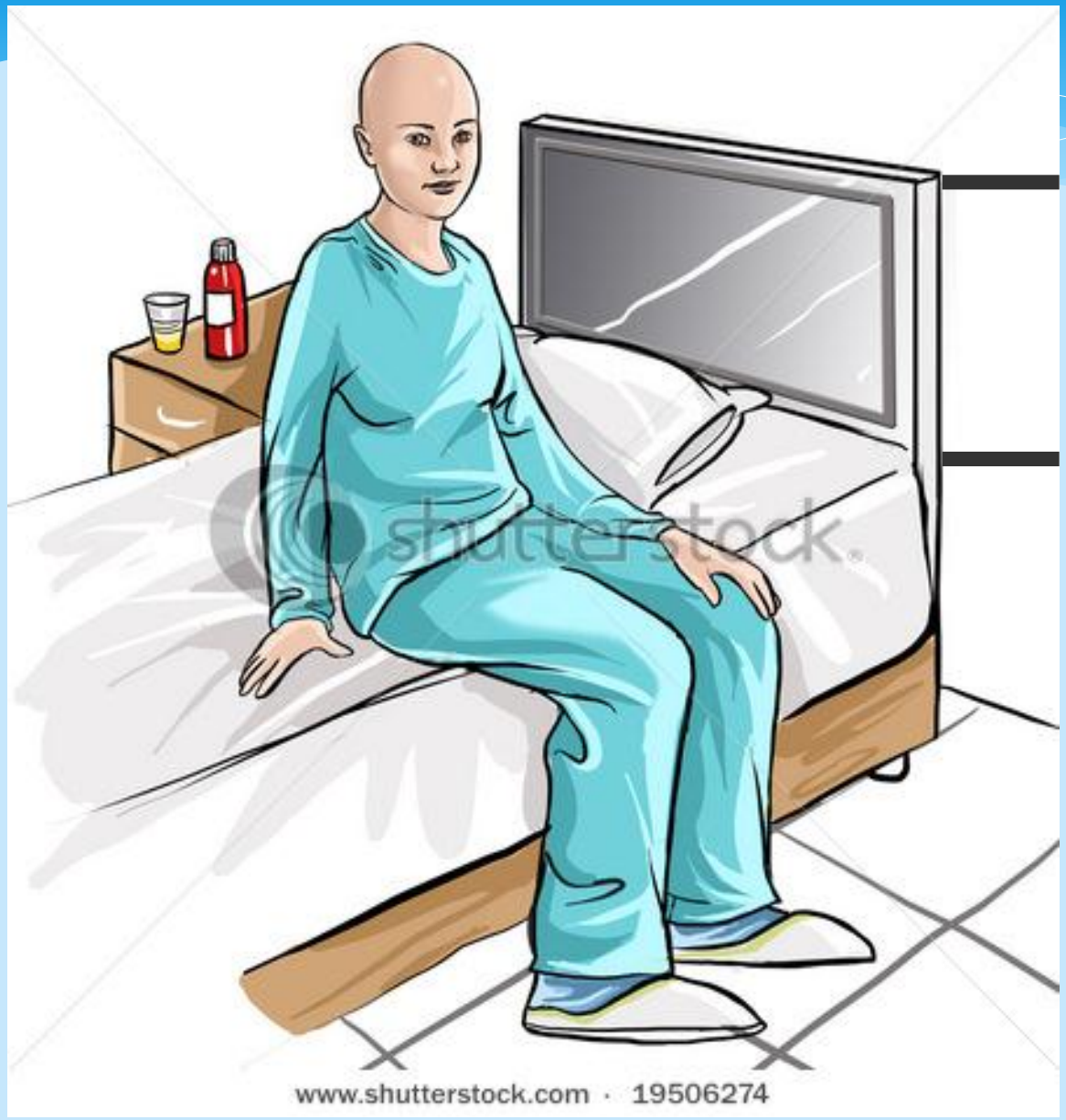
- Then consider calming interventions:
  - weighted baby doll
  - fluffy purring kitten
  - weighted blanket
  - self locking brakes
  - anti-roll back devices
  - interest boxes;
    - jewelry, tackle, puzzles, reading materials

The 4 P's

* ***Are we meeting the 4 P's ???***
  * **Potty**
  * **Positioning**
  * **Pain-**
  * **Placement (Bed at correct height; are items placed in reach? Phone, call light, tissues, walker, etc.)**

Why are We Decreasing Lowered Beds?

* Beds that are too low cause residents to strain to stand up
* Beds that are too high increase chance of injury if a fall from bed occurs
* Beds at the correct height make it easier to stand up correctly, causing less strain on the caregiver and the resident (correct bed height is achieved when resident sits on the edge of the bed with their feet flat on the floor and their hips slightly higher than their knees)



← Bed height

← Bed height

Contrast the Environment

Personal items: Which is easier to see?

Contrast the Environment

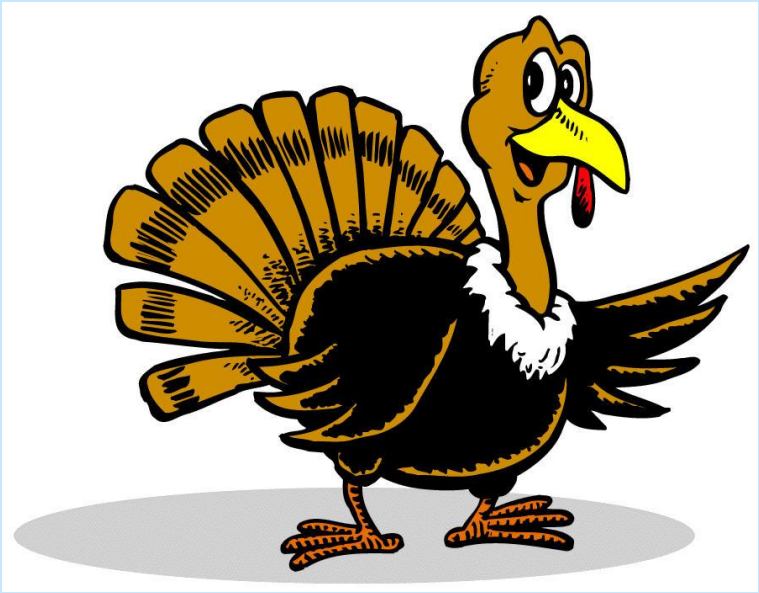
Most Important Environmental Element to Prevent Falls: BUT . . . No contrast to background

Mats on Floor Reduction

- Mat creates an uneven floor surface
- Mat does not go full length of bed
- Mat is confusing to dementia residents
- Efficacy of mats has not been proven: VA study
- Presence of floor mat creates a fall hazard
- Staff, families and residents trip over mat

WHERE TO START TO ELIMINATE ALARMS !!

* DO YOU GO “COLD TURKEY”



Implementation of Alarm Reduction

* ***This is a process, not an event !***
* *Don't recommend going cold turkey!*
* Staff and family education
* Identify a unit or hallway to begin with

Implementing Alarm reduction : Provide Education

* Education
  * Family Brochure
  * Staff education on Alarm reduction and Root Cause Analysis

Family Education

* May be challenging
* Provide education
  * Admission
  * Care conference
  * Discuss RCA
  * Provide brochure

Family Brochure/Pamphlet

Why are we very concerned about falls?

Falls are a major health risk for our elderly population. One out of every three older Americans falls every year. Only 1/2 of all elderly people can live alone or independently after sustaining injuries from a fall. Falls are a significant source of fractures and soft tissue injury. Falls are the most common cause of severe injury in older adults.

Who is at the highest risk for falling?

Falls are most likely to occur in elderly persons who have:

- ~ Recently fallen
- ~ Difficulty balancing, reaching, walking, sitting and/or standing up straight
- ~ Difficulty getting in and out of a chair, car, bed or on and off of a toilet
- ~ Dizziness / Pain
- ~ Weak bones & muscles
- ~ Multiple medications
- ~ Vision and/or hearing loss
- ~ Memory loss / confusion

Our goal is to provide a safe and healthy environment.

Why do some falls happen?

*Sudden noise,

*Poor Lighting, no nightlight,

*Uneven or slippery floor surfaces,

*Cluttered surroundings,

*Hard to reach personal items or bending to get items,

*Incorrect bed height.

* Footwear with soles that slip or offer no support, e.g. slippers, socks.

*Lack of hand rail support,

*Broken furniture, equipment.

***Please report any of these to a staff member.**

Our staff has been trained to reduce the risk of falling for you and your family.

Residents, Families & Visitors

Fall Prevention:

How Can You Help?

We look forward to meeting with you to discuss Fall Safety.

Facility Fall Risk Coordinator:
Name
Phone
E- mail

Resident Brochure/Pamphlet

Fall Management Program

Would you please help us to manage and hopefully reduce falls?

Here's what you can do:

- If you had a fall or a history of falling prior to admission, let us know.
- Keep active: stand, walk, move, balance, stretch, reach, attend activities, and exercise groups.
- If you have a walker or cane, make sure you always use it.
- Stay alert, be social: read, do puzzles and games, go to activities and talk with people.
- Wear non-skid, low heeled, fully enclosed shoes, and well fitting clothing.
- Stand up slowly from a lying or sitting position to prevent dizziness. Count 1, 2, 3, 4 so you do not end up on the floor.
- Keep your room clutter free, report any barriers or hazards.
- Report to the nurse any feelings of weakness, dizziness, nausea, or reduced ability to move around, walk or talk.
- Report to the nurse if you fall or catch yourself falling.
- Ask any staff to place your call-light, TV remote and other items so you can reach them

*The Information contained within this brochure is not intended to replace seeking medical attention.

Here's what we will do:

1. We will talk to your doctor or pharmacist to determine if any medications, medical actions or treatments need to be changed or not taken.
2. Physical, Occupational and Recreational Therapies will provide programs and services to help keep you strong, oriented and active.
3. We will conduct a post fall investigation and assessment to identify the possible causes of your fall.
4. We will take action by putting interventions into place to reduce the likelihood of future falls from occurring.
5. We will provide equipment and safety devices to reduce your risks for falling.
6. We will check on you frequently to make sure you have your personal needs met, personal items within your reach, you are in a comfortable position, and comfort measures are in place.
7. We will check the surrounding area for any environmental conditions that may have contributed to your fall.

Implementation of Alarm Reduction

* Identify a place to begin
  * *Consider starting with*
    * **Units / shifts or;**
    * Resident status, or;
      * **BOTH**

Implementing Alarm Reduction:

* *Recommend to start with the easiest situation first on the identified unit*
  * No fall history, or;
  * No recent falls
  * The best chance of increased mobility
  * Determine RCA of falls, movements, etc.

Implementing Alarm Reduction

By

Resident Status

* Begin rounding on residents that have fallen
* No restraints or alarms on new admissions
* No restraints or alarms on any resident that doesn't currently have one
* If the resident hasn't fallen in 30 days
* If alarm appears to scare, agitate or confuse resident
* If resident has fallen with alarm on, do not put back on

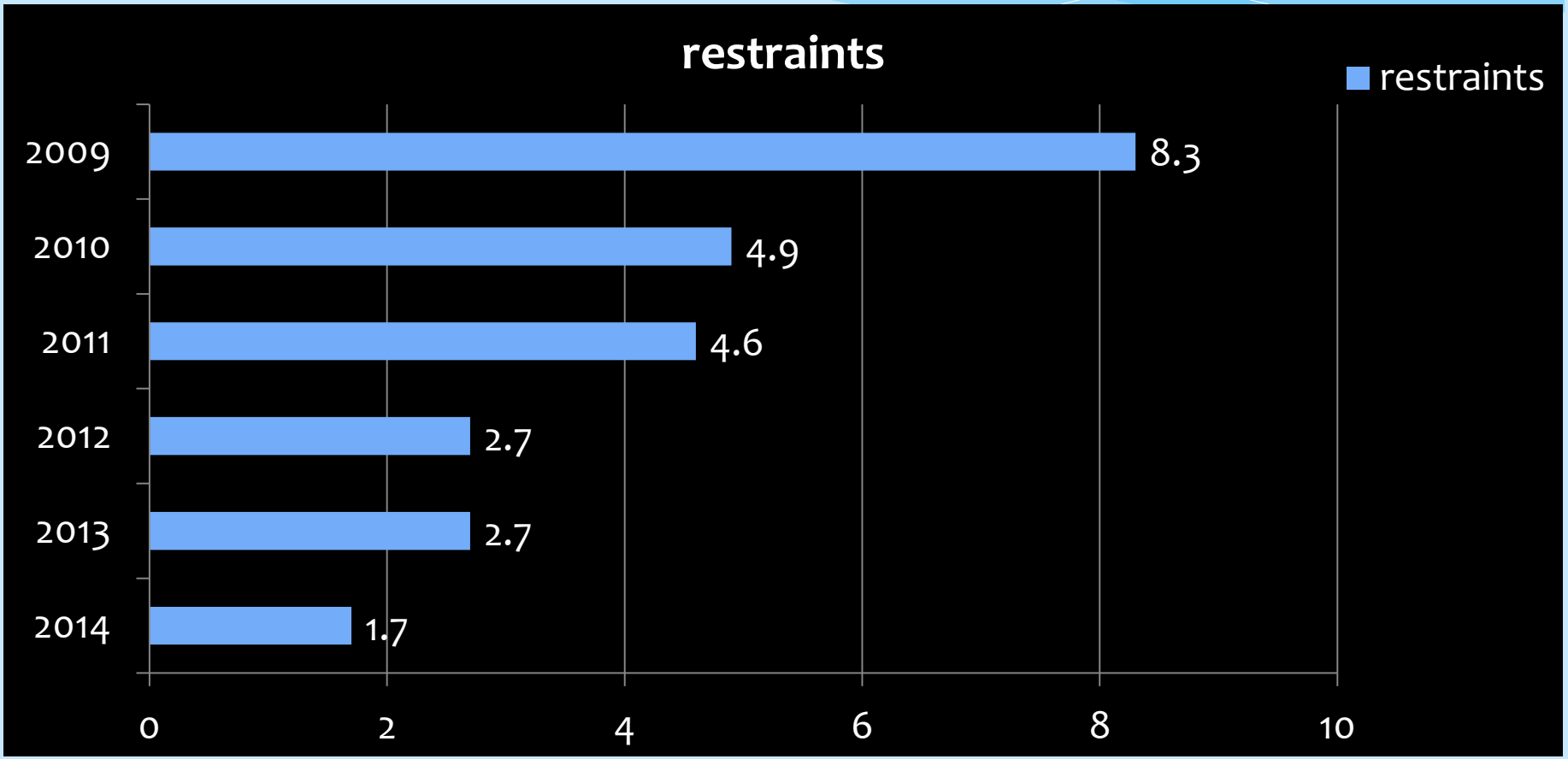
By Unit, Shifts or Times

* Begin rounding on residents that have fallen
* Start on day shift, on 1 unit
* Then go to 2 units on day shift
* Then go to 2 shifts on 1 unit
* Then go to 2 shifts on 2 units, etc.

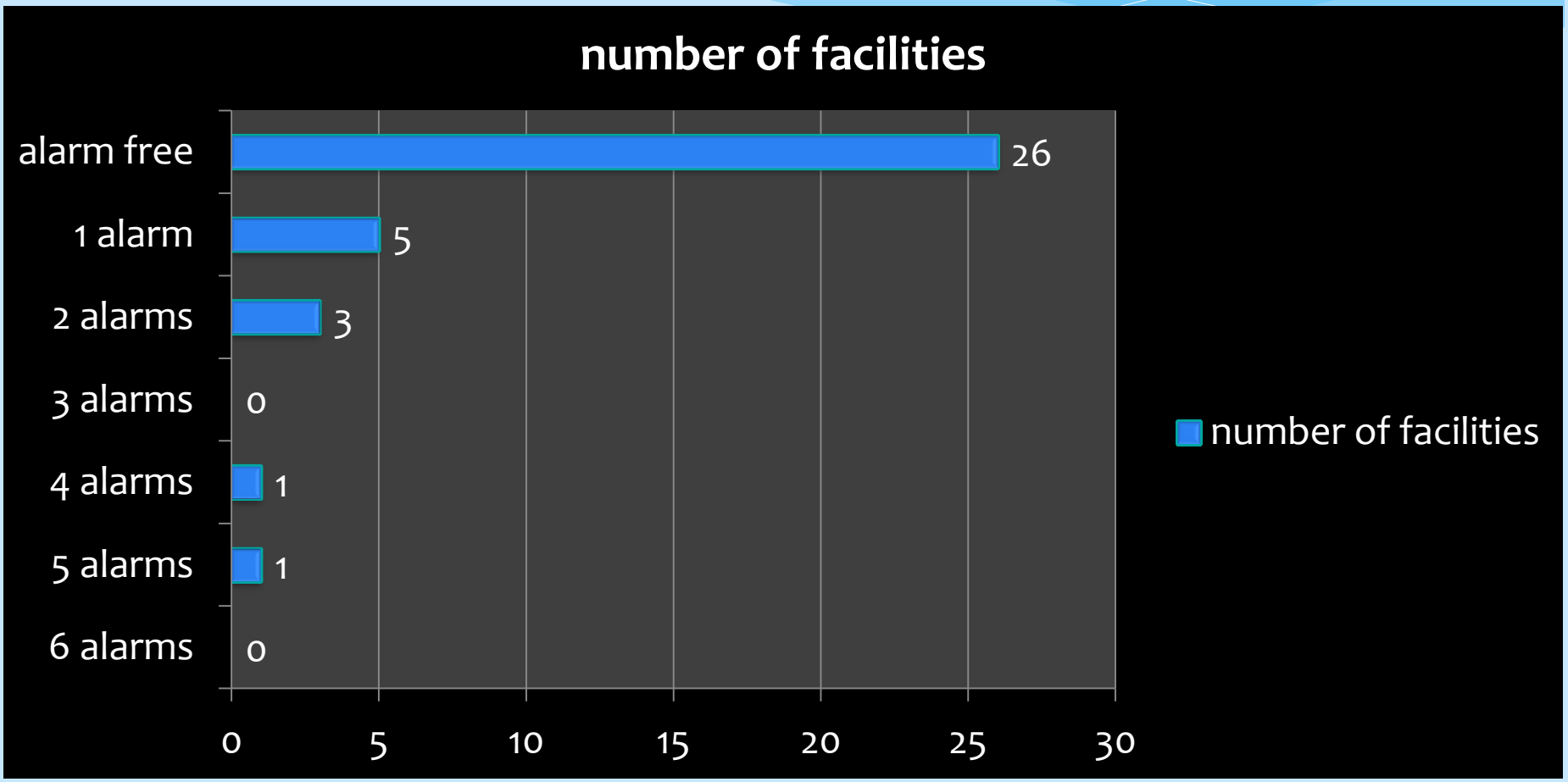
How Effective is This?

* CIENA statistics
  * Reduction in personal alarms, near elimination
  * Reduction in restraints
  * Reduction in antipsychotic use

CIENA RESTRAINT USE

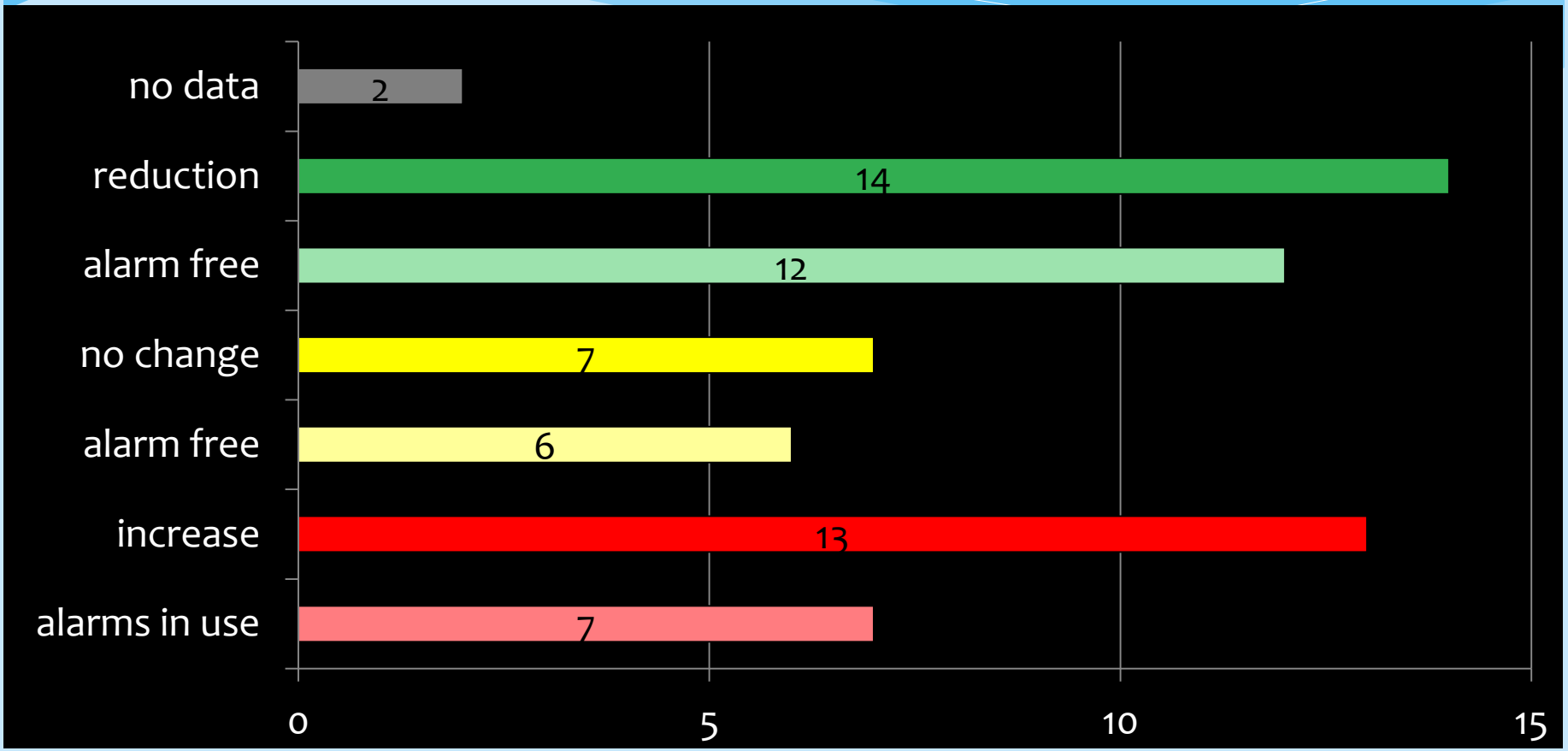


CIENA ALARM USE

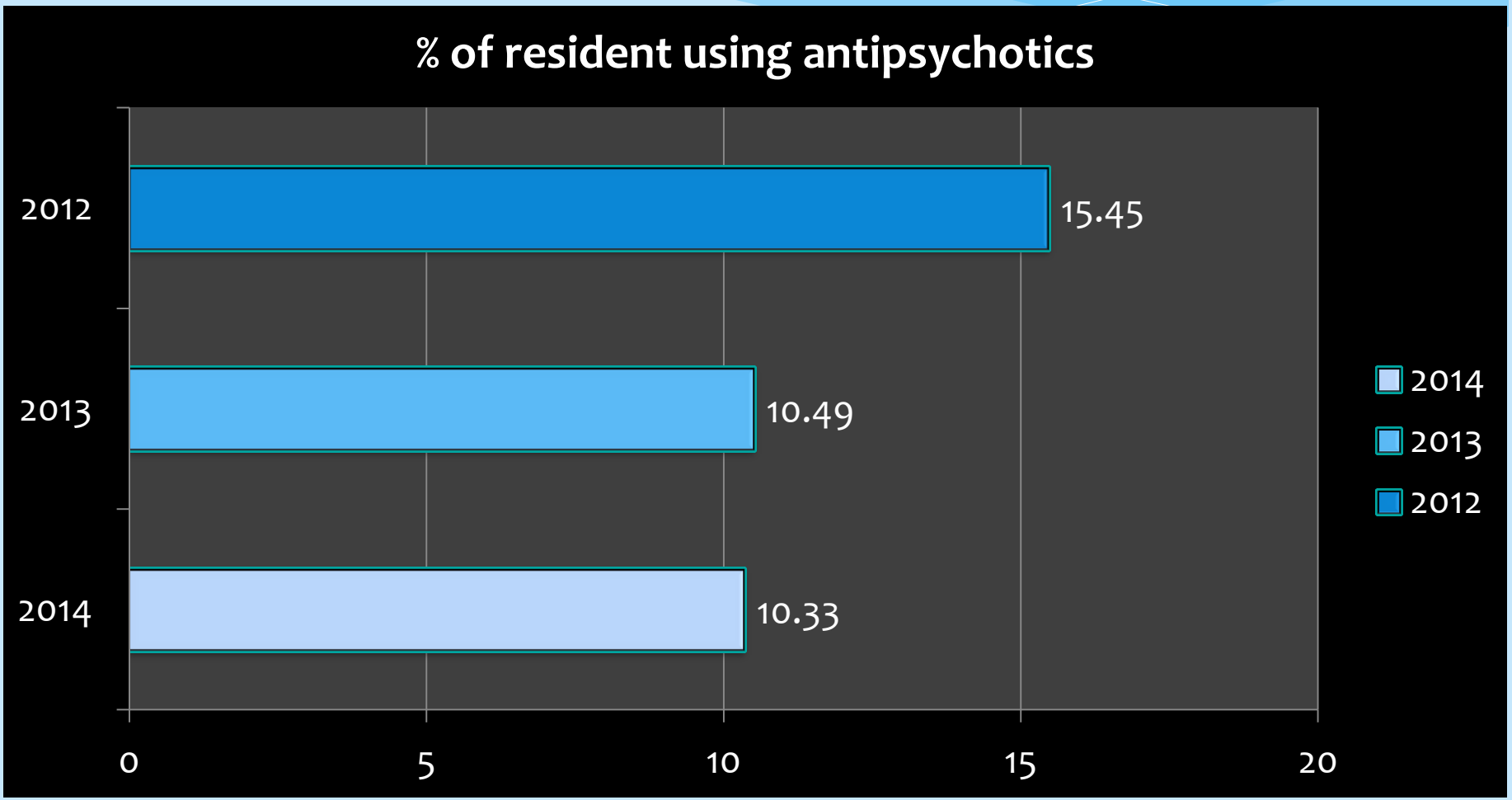


Repeat Falls

after one year of alarm reduction 6/2013 to 6/2014



CIENA Antipsychotic Use



Preventing Falls: A Team Approach

* It is the responsibility of all staff to ensure the safety of our residents

SCRAP Future Falls by Responding Appropriately !

Stop- No matter what your job, your first job is to stop

Call- call out to the nearest staff member to find a nurse- do not leave the resident.

Reassure the resident that nursing is on their way, to remain calm and not to move

Ask the resident what they doing just before they fell (it is important to ask this quickly, before commotion causes details to be forgotten)

Pay attention to the scene- what around the resident may have contributed to the fall

REGULATIONS

WORKING TOGETHER TO ENSURE QUALITY OF CARE AND

REGULATORY COMPLIANCE

Regulations

- F221 Restraints
- F272 & F278 Assessments
- F279 Care Plans
- F241 Dignity
- F242 Self Determination
- F309 Quality of Care
- F323 Supervision and Assistive Devices
- F353 Sufficient Staff
- F520 Quality Assurance

F221 RESTRAINTS

The resident has the right to be free from any physical or chemical restraints imposed for the purposes of discipline or convenience and not required to treat the resident's medical symptoms.

F272 & F278 Assessments

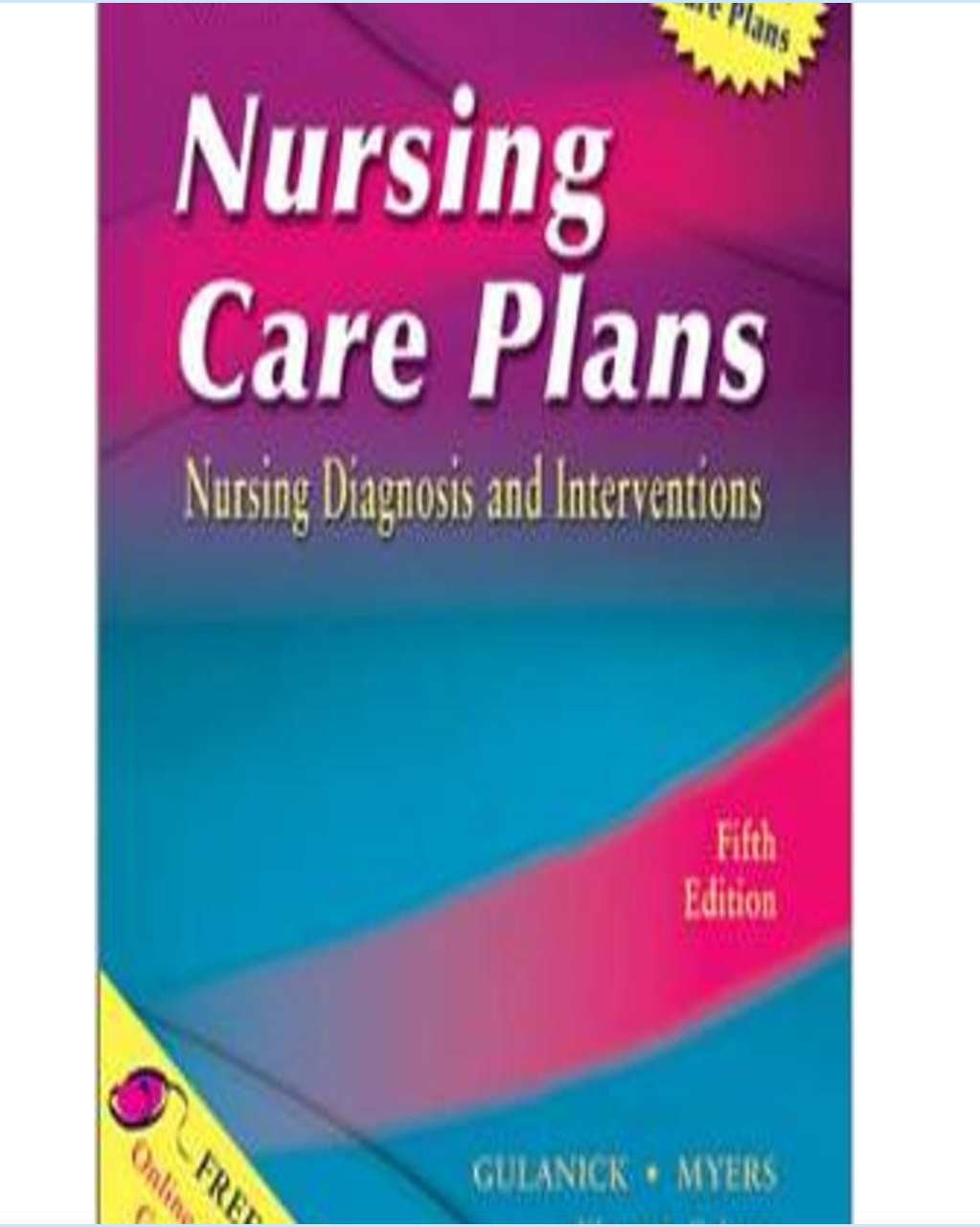
The facility must conduct initially and periodically a comprehensive, accurate, standardized reproducible assessment of each resident's functional capacity…

The assessment must accurately reflect the resident's status

F279 Care Plans

A facility must use the results of the assessment to develop, review and revised the resident's comprehensive plan of care….

that includes measurable objectives and timetables to meet a resident's medical, nursing, and mental and psychosocial needs that are identified in the comprehensive assessment.



F241 Dignity

The facility must promote care for residents in a manner and in an environment that maintains or enhances each resident's dignity an respect in full recognition of his or her individuality.

F242 Self Determination

The resident has the right to –

Choose activities, schedules, and health care consistent with his or her interests, assessments and plan of care…

Make choices about aspects of his or her life in the facility that are significant to the resident.

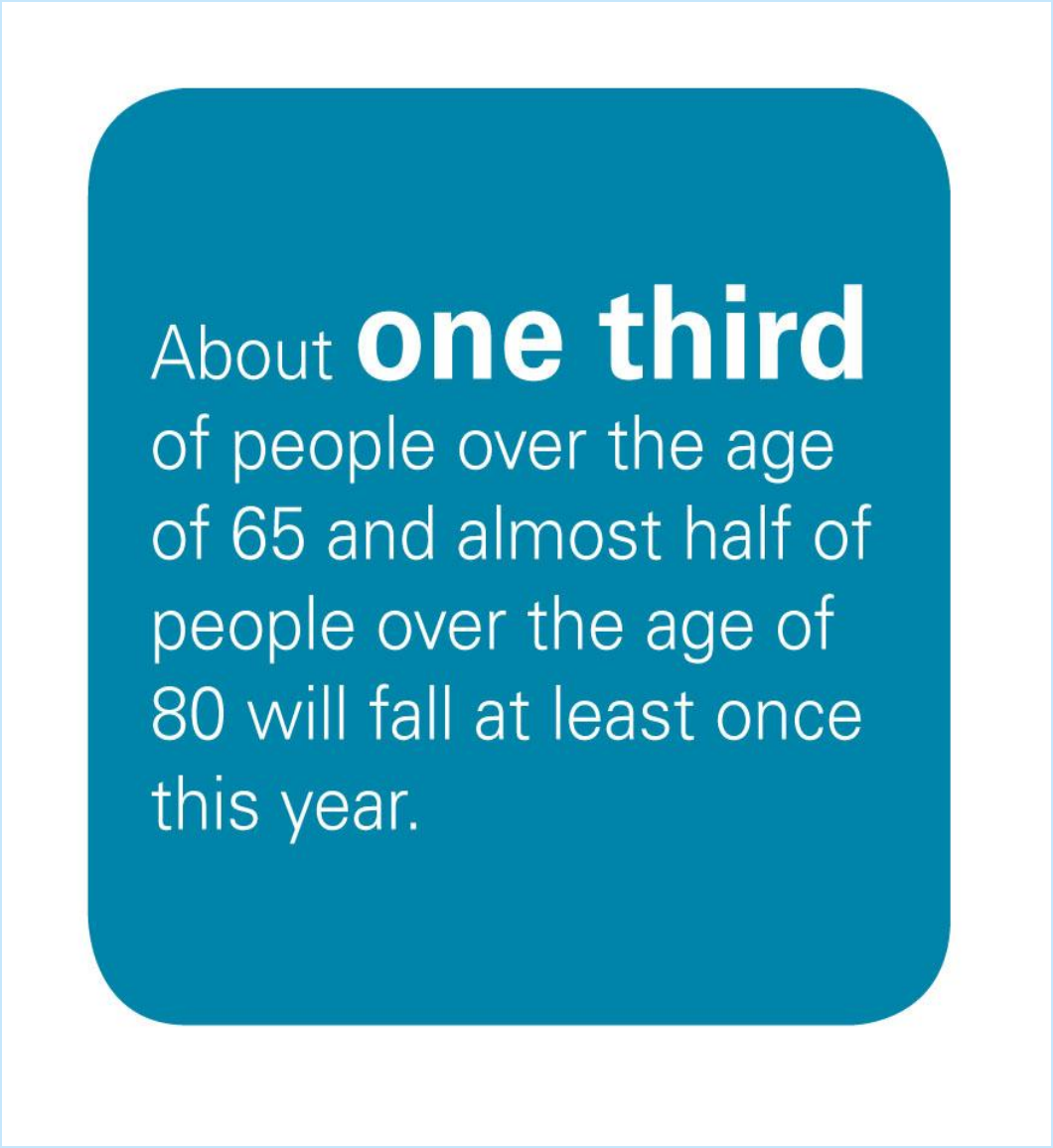
F309 Quality of Care

Each resident must receive and the facility must provide the necessary care and services to attain or maintain the highest practicable physical, mental and psychosocial well-being, in accordance with the comprehensive assessment and plan of care.

F323 Supervision and Assistive Devices…

The facility must ensure that…

Each resident receives adequate supervision and assistance devices to prevent accidents.



F353 Sufficient Staff

The facility must have sufficient nursing staff to provide nursing and related services to attain or maintain the highest practicable physical, mental and psychosocial well-being of each resident as determined by resident assessments and individual plans of care.

F520 Quality Assurance

The Quality Assessment/Assurance committee is responsible for identifying whether quality deficiencies are present (potential or actual deviations from appropriate care processes or facility procedures) that require action. If there are quality deficiencies, the committee is responsible for developing plans of action to correct them and for monitoring the effects of these corrections.